

Appl. No. 10/534,101  
Reply to Office Action Dated January 19, 2007

### Remarks

Claims 1 and 13 has been amended. It is believed that no new matter has been added by way of amendment. Applicant submits that the amendments and remarks obviate the Examiner's objections.

#### I. Claims Rejection under 35 USC §101

Applicant has amended the independent method claim 1 to recite the additional step of *"performing one of recording and logging of the determined resistivity, and of updating the model of the formation based on the determined resistivity."* This language now define at least one tanguable result and a physical transformation for overcoming the examiner's objections.

The specification describes a number of possible physical transformations of the result, which are supported by corresponding passages of the present application as filed. Specifically, Figure 1 shows and describes on page 7 line 21 the results of a resistivity log in a formation. The real-world importance of such resistivity logs for locating hydrocarbons in a formation have been described, for example page 1 lines 9-15.

Moreover, page 8 line 25 describes a tool (CFHR) for carrying out the resistivity log in a cased well that is able to perform "measuring and recording" functions. Thus, these are potentially further physical transformations of the resisitivity result. The "logging" function is shown in Figure 1 as logging a resistivity curve as a function of depth. However, it would seem that others expressions of the resistivity logs might also be dispayed.

There is also described of the updating of a mathematical model using the determined resistivity (see block 30 of Figure 2 and the associated passages of pages 9 lines 8-10, lines 16-

Appl. No. 10/534,101  
Reply to Office Action Dated January 19, 2007

19, lines 22-23, page 9 lines 1-5 and 16-17 describing the refinement of such a model using the resistivity). Thus, "upating the model" appears to be yet another possible physical transformation of the resistivity result. From a real-world point of view it is seems clear that a more accurate model of the formation, provides a more representation for locating hydrobarbon deposits in a formation.

Thus, applicant submits that the amendment to claim 1 meets the tangible result and/or physical transformation requirements discussed with the Examiner.

## II. Claims Rejections under 35 USC §112

Examiner rejected claims 1-13 under 35 USC 112 as being indefinite for failing to particularly point out and distinctly claim the subject matte which applicant regards as the invention. Applicant submits that the amendments to claim 1 as discussed above provide clear language for the reader to ascertain the tangible result(s) of the determined resistivity.

Applicant has also amended claim 13 into a form which overcomes the examiner's dependency objections under 37 CFR 1.75(c). The amendments to Claim 13 clarifies the embodiment in which the determined resistivity can be applied for the determination of the saturation and/or salinity of water in a section of water capture of the formation (supported for example by page 11 lines 8-15 and page 12 lines 3 to 6 of the present application).

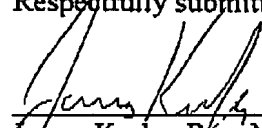
Applicant believes the amendments and remarks deal with all outstanding matters and raise no new matter issues. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned at the telephone number listed below.

Appl. No. 10/534,101  
Reply to Office Action Dated January 19, 2007

This paper is submitted in response to the Office Action dated January 19, 2006 for which the three-month date for response is April 19, 2006. Please apply any charges not covered, or any credits, to Deposit Account 50-2183 (Reference Number 21.1034).

Respectfully submitted,

Date: 4/19/07

  
James Kurka, Reg. No. 47,726  
Schlumberger Technology Corporation  
200 Gillingham Lane, MD 9  
Sugar Land, TX 77478  
Telephone: (281) 285-6493  
Facsimile: (281) 285-8821

Attachments